

Forcing data for LIS data assimilation ...

[fan](#) 24 posts since

Apr 16, 2008 I plan to assimilate soil moisture data with LIS/EnKF, following Kumar et al. (2008).

The paper used GEOS forcing data, but how can I get it? The link on the page <http://lis.gsfc.nasa.gov/FAQ/forcing.shtml> NLDAS doesn't work.

What are the main differences between GDAS and GEOS to force LIS?

I saw a new dataset GLDAS, it sounds a good forcing data to force LIS and is said that GLDAS has used GDAS or other atmospheric analysis (not including GEOS) as forcing. So, to force LIS, what are the main differences between GLDAS and GDAS or GEOS?

I have this question because in our OSSE, we used NLDAS forcing and CLM for nature run, now, we have to use a different forcing data and a different LSM for data assimilation.

Any suggestions for this?

I would appreciate any help from the LIS community.

Xingang Tags: forcing, data, lis

[sujoy](#) 118 posts since

Sep 20, 2007 **1. Re: Forcing data for LIS data assimilation** Feb 17, 2009 4:40 PM

GEOS is the output of the global modeling system at NASA GMAO and GDAS is the product from NCEP. Please note that GEOS product is known to have large errors (at least version 3). The GLDAS data is not supported in LIS 5.0 and is only available for future versions of LIS. GLDAS is a merged forcing dataset that combines GEOS+CMAP (precip) and AGRMET radiation.

Unfortunately we do not have a way to transfer large datasets (such as the GEOS record) and we are not planning to have a public data server. Please let us know if you have any server that we can upload data to (Any other suggestions?)

Also, please provide more details of your OSSE setup.

Thanks,

-Sujoy

[fan](#) 24 posts since

Apr 16, 2008 **2. Re: Forcing data for LIS data assimilation** Feb 17, 2009 11:19 PM

in response to: [sujoy](#)

Sujoy: Thanks for the update!

I have a ftp site to where you could put data through anonymous login.

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It is <ftp://ftp.hpc.msstate.edu/incoming/fan>

To make sure:

- 1) GLDAS is not going to work for me, since it is not supported yet in LIS 5.0. (It is mentioned on the LIS website, I thought it's going to work.) How much effort it will involve to get it into LIS 5?
- 2) GEOS definitely works for me. Is this the data that you are going to put on my server?
- 3) GDAS? Is it available for LIS 5? Now that GEOS has large errors, perhaps it is good to use GDAS if it is available.

For the data assimilation in my OSSE work, I am going to use what ever the forcing data I get (other than NLDAS) and to assimilate retrieved soil M data with LIS 5.0/Noah/EnKF. The model will be run at 1 degree or 1/8 degree resolution for the domain of Red Arkansas River Basin. The simulation time period is 2002 and 2003, spin-up from 2000.

Thanks,

Xingang

[sujay](#) 118 posts since

Sep 20, 2007 **3. Re: Forcing data for LIS data assimilation** Feb 18, 2009 8:51 AM

in response to: [fan](#) Xingang:

I was trying to upload the GDAS data, but the ftp failed (Says: permission denied).

Also, note that we are not planning to do major code developments with LIS5. Only bug fixes will be added to LIS5.

-Sujay

[fan](#) 24 posts since

Apr 16, 2008 **4. Re: Forcing data for LIS data assimilation** Feb 18, 2009 10:27 AM

in response to: [sujay](#)

Sujay:

Thank you for trying it. I tested it from an outside computer network. It works.

You may use a small regular text file to test. It reported permission denied when I tried to put a file named ".cshrc", but it was successful when I put "tt.f".

Please call me at 662-325-8429 if you still can't put files.

Thanks a lot for your time!

Xingang

[fan](#) 24 posts since

Apr 16, 2008 **5. Re: Forcing data for LIS data assimilation** Feb 18, 2009 10:32 AM

in response to: [fan](#)

commands I used:

ftp ftp.hpc.msstate.edu

username: anonymous

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passwd: xfan@aaa.bbb.edu

cd /incoming/fan

bi

prompt

mput tt.f

- Xingang

[sujay](#) 118 posts since

Sep 20, 2007 **6. Re: Forcing data for LIS data assimilation** Feb 23, 2009 10:56 AM

in response to: [fan](#) Xingang,

The forcing data is organized into subdirectories, by date. So I need the ftp to recursively upload them. I tried ncftp as well but it didn't work. Let me know if you find out how to do this.

-S

[fan](#) 24 posts since

Apr 16, 2008 **7. Re: Forcing data for LIS data assimilation** Mar 1, 2009 11:17 PM

in response to: [sujay](#)

Hi, Sujay:

Thank you for the attempts. Our ftp server do have problem with uploading directories. I have asked help from system administration but the problem has not been solved yet. However, I am wondering if you could tar and gzip the sub directories and put them as files (This has been tested and should work). If it is not applicable in this case, I will continue to work out a way for you to recursively upload the data. Thanks.

Xingang

[fan](#) 24 posts since

Apr 16, 2008 **8. Re: Forcing data for LIS data assimilation** Mar 23, 2009 11:03 AM

in response to: [fan](#)

Hi, Sujay:

Could you please make a list of all the directories and files by issuing a UNIX command at the top directory:

ls -lRp > GDASfilelist.txt

and send this list file GDASfilelist.txt to me?

I will write a shell script and send it to you so that you can run it at the top directory and automatically put all data files onto my ftp site.

Thanks,

Xingang